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A Broken System?

Prescription Drug Use and Abuse in Fraternity and Sorority Members.

There is considerable evidence indicating that risk-taking behavior increases in college (Bartholow & Krull, 2003; Carry, Carry, & Scott-Sheldon, 2008; Kenney, Mirza, LaBrie, & Lac, 2011). The National College Health Risk Behavior Survey indicated that a large percentage of American college students participate in behaviors that put them at risk (Centers for Disease Control, 1995). These behaviors include cigarette smoking, heavy episodic drinking, drinking and driving, drinking and boating, lack of dietary nutrition, and being overweight (Centers for Disease Control, 1995). Of those college students surveyed, 29% reported being a cigarette smoker, 34.5% reported heavy episodic drinking, and 27.4% reported drinking and driving. In addition, 20.4% of female students surveyed reported having been forced to have sexual intercourse, and only 29.6% of students reported using a condom during their last sexual encounter (Centers for Disease Control, 1995). These percentages stand in contrast to those reported by adults in the United States.

In comparison to the 29% of college students that report smoking cigarettes, the CDC reports that only 17.8% of American adults currently smoke. The CDC additionally reports that 6.8% of Americans report heavy drinking in the past month as opposed to the 34.5% of college students that report the same. Research suggests that while the American college student population reports higher percentages of risk-taking behaviors, there is a sub-set of this college population that is disproportionately represented in these percentages. This sub-set, comprised of college students affiliated with fraternities and sororities (i.e., the Greek System) demonstrates a significantly higher propensity for risk.

Increased Risk-Taking in Greek-affiliated Students

Carey et al., (2008) suggest that in comparison to non-Greek college students, Greek-affiliated students engage in significantly higher percentages of alcohol use, binge drinking, cigarette smoking, drug use, and high-risk sexual behavior. Similar trends of increased alcohol and cigarette use are consistently observed in the research spanning across disciplines from psychology to medicine (Routon & Walker, 2014; Gore-Felton, Mathews, McGarvey, Porter, Ragsdale, & White, 2012; Borsari, Laird & Wood, 2007). Kenney et al., (2011) additionally present research suggesting that fraternity/sorority membership, as well as residing in a fraternity or sorority house, significantly increase the risk of drinking and driving among college students, and Mathews et al., (2012) further demonstrate that members of a sorority or fraternity are more likely to engage in binge drinking than non-affiliated students. Despite the amount of research indicating increased alcohol and illicit drug use in these populations, there is a lack of research on the prevalence of prescription drug abuse.

What is the Greek System?

In order to examine patterns occurring in Greek-affiliated populations, it is important to consider the nature of the Greek system as a whole. The first Greek-letter association, Phi Beta Kappa founded in 1776, was vastly different from its modern day counterparts. Although the initial purpose was primarily academic, the Greek organizations of today are almost exclusively socially oriented. Greek organizations require “an active decisions that often requires extensive application procedures...In addition, students must be invited to join and must pay for the privilege” (Nezlek & Smith, 2005). Researchers assert that this element of Greek organizations is crucial in

explaining why Greek-affiliation tends to lead to higher levels of risk-taking behavior (Bachmen et al., 2005; Bosari et al., 2007; Nezlek et al., 2005).

Research suggests that a combination of these selection and socialization effects is the primary reason why Greek-affiliated members are engaging in risk-taking behaviors (Bachmen et al., 2005; Bosari et al., 2007). The idea of selection effects suggests that a person may be more inclined to act in a certain way or join a certain organization because of their own innate and previously established characteristics (Bachmen et al., 2005). For example, this theory would suggest that members of a fraternity/sorority consume more alcohol because of a previously established pattern of alcohol abuse, not because of their fraternity/sorority affiliation. Socialization effects refer to the influence of particular environments and organizations on an individual's actions and choices (Bachmen et al., 2005). This contention suggests that students with certain inclinations and characteristics may be more likely to seek membership in a sorority or fraternity, and that these students may additionally be further influenced by particular characteristics of Greek organizations and the environments they create. In other words, it may not be the nature of the organization, but that risky students are more inclined to join organizations that facilitate risk-taking. In this case, the nature of the members themselves would be responsible for increased levels of risk associated with fraternities/sororities, as opposed to the nature of the organization.

Although trends of increased risk-taking behavior have been consistently observed in Greek-affiliated college students, the question of why these organizations seem to facilitate this behavior still remains. Elements of these organizations that lead to increased risk-taking may partially be a by-product of the various elements of

membership in a fraternity or sorority. These elements include the organization of member-exclusive activities and parties, as well as various functions held between different fraternities and sororities. Other expectations of fraternity and sorority membership include grade point average requirements and certain behavioral standards. It seems in this sense that members of fraternities and sororities may be more vulnerable to risk-taking behaviors partially because of the parties and functions they are expected to attend in conjunction with the standards they are expected to uphold. Bachman et al., (2005), Bosari et al., (2007), and Carey et al., (2008) cite reciprocal social influences, and selection and socialization effects as being responsible for these differences, but this has yet to be verified by further research. With approximately 9 million Greek-affiliated college students in the United States, the health and wellbeing of approximately 3% of the United States population warrants further research (Glass, 2012).

Alcohol Abuse amongst American College Students

According to the National Institute of Alcohol Abuse and Alcoholism (NIAAA), approximately 56.4% of people 18 and over reported consuming alcohol in the past month (National Institute of Alcohol Abuse and Alcoholism, 2015). Research additionally suggests that 79.6% of college students typically ranging from ages 17 to mid-twenties report drinking in the past month. Further, 61% of college students report binge drinking at least once in the past month. Additional research purports that in one sample of college students 44% reported having a binge drinking experience in the two-week period prior to completing the survey form (Feigelman, Gorman, & Lee, 2002). By comparison, estimates from The National Institute of Alcohol Abuse and Alcoholism for adults reports that in 2013 only 24.6% of adults report binge drinking in the past month.

Alcohol Abuse amongst Greek affiliated College Students

In light of research suggesting increased levels of alcohol abuse amongst American college students, an examination of alcohol use and abuse amongst sorority and fraternity members yields noteworthy comparisons. Research suggests that Greek membership increases the frequency of alcohol consumption, as well as fraternity men and women reporting engaging in heavy episodic drinking an average of 5.46 days and 4.27 days in the past month respectively (DeJong, Fairlie, & Stevenson, 2010). In addition, research suggests that in some student populations, 70.2% of fraternity members report heavy episodic drinking in the past two weeks compared to 42.0% of non-members that reported the same (Bachman, Johnston, Kloska, McCabe, O'Malley, & Schulenberg, 2005). Research additionally suggests that students engage in heavier alcohol use after joining a fraternity or sorority compared to before they become affiliated (Lo & Globetti 1995; Sher, Bartholow & Nanda 2001; Bartholow, Sher & Krull 2003).

Illicit Drug Use Amongst American College Students

Just as research suggests that higher percentages of alcohol use and abuse are reported by college students, research also indicates a 22% increase in marijuana use in college students from 12.9% to 15.7% between the years of 1993 to 1999 (Glendhill-Hoyt, Lee, Strote, & Wechsler, 2000). Marijuana use in the past month additionally rose to 18.6% by 1998, and the rate of other illicit drug use generally demonstrates a similar increase (Glendhill-Hoyt, Lee, Strote, & Wechsler, 2000). This trend was additionally observed for all illicit drugs in the last 30 days aside from LSD, and nine out of ten students (91%) who reported using marijuana in the past 30 days reported using other illicit drugs in the same time period (Glendhill-Hoyt, Lee, Strote, & Wechsler, 2000).

These statistics stand in contrast to national averages reported by the National Institute of Drug Abuse (NIDA). In 2013 they estimated that 24.6 million Americans aged 12 or older (9.4% of the total population) had used illicit drugs in the past month. Of this statistic 19.8% represents marijuana use, 1.5% cocaine, and 1.3% hallucinogens.

Illicit Drug Use in Greek-affiliated College Students

Research reports that in comparison to 62% of non-affiliated students, 85% of Greek-affiliated students reported lifetime use of Marijuana (Carey et al., 2008). In the past thirty days, 57% of Greek-affiliated students reported marijuana use compared to 36% of non-affiliated students (Carey et al., 2008). The same population reported 65% of Greek-affiliated students, and 44% of non-affiliated students had partaken in “Other drug use” in their lifetime. In the past thirty days, “Other drug use” was additionally reported by 34% of Greek-affiliated members and 17% of non-members (Carey et al., 2008) This positive relationship between Greek-affiliation and illicit drug abuse is a crucial starting point to examine this population’s abuse of prescription drugs.

Prescription Drug Abuse amongst American College Students

In light of the significant amount evidence demonstrating that college students are generally reporting higher percentages of risk taking behaviors such as alcohol and illicit drug abuse, an examination of this trend in relation to prescription drug abuse has recently gained more attention in the media (Gasser, Geisner, Kilmer, & Lindgren, 2015). In the present context the phrase ‘prescription drug use’ refers to the use of prescription drugs not prescribed to the user by a medical professional. When referring to ‘prescription drug abuse’, the present discussion refers to the misuse of one’s own

prescription. In other words, using a prescription that was prescribed by a medical professional in a way contrary to that prescribed.

Recent research has found that lifetime rates of prescription drug abuse, particularly prescription stimulants, are as high as 20% (McCabe, 2008). In addition, research suggests that prescription drug use and abuse is associated with other negative effects such as lower GPAs and general negative consequences. Among those reporting negative consequences, 19.1% reported experiencing unintended academic consequences, and 34.6% reported experiencing negative unintended health consequences (Blackwell, Davis, Evans, Gaines, Jones, Newcomer, Pollard, Robinson, & Tanner, 2014). Gasser et al., (2015) found that 19% of respondents in one study reported lifetime non-medical use of prescription stimulants in one college population. Research has additionally examined the availability of prescription drugs on college campuses stating that at one college in the United States 50% of students reported that prescription stimulants in particular were “easy to get on campus” (Weyandt, 2007). These percentages are particularly troubling when compared to the fact that research suggests on average, 2-4% of American college students actually suffer from ADHD symptoms (DuPaul & Weyandt, 2001; Heiligenstein, Conyers, Berns, & Smith, 1998). This means that while rates of prescription stimulant misuse or abuse are up to 20% in some college populations, only 2-4% of these populations actually need prescription stimulants to treat a medical condition.

More recent research continues to report rates of prescription drug abuse on college campuses as ranging between 5.3% (Dupont, Coleman, Bucher, & Wilford, 2008; Amoroso, Gudmundsdottir, Marraccini, Munro, Turcotte, Weyandt, & Zavras, 2013) to

34% (De-Santis, Webb, & Noar, 2008). With research consistently demonstrating increasing prevalence rates of prescription drug abuse on college campuses and the typically higher rates of other risky behaviors in members of fraternity/sororities, an examination of how use rates among Greek-affiliated students fall into these percentages must be done.

Present Research

With previous research on alcohol and illicit drug abuse in Greek-affiliated college students, the current study set out to examine the relationship between Greek membership and the abuse of prescription drugs. The present study hypothesizes that percentages of prescription drug abuse amongst Greek-affiliated students will be higher than use amongst non-affiliated students. The present study will also examine the relationship between Greek-affiliated and non-affiliated students in relation to the type of prescription drug abuse reported (e.g. taking prescription drugs without a prescription, or taking prescribed drugs in an inappropriate manner), and the time frame of abuse (e.g. did the abuser begin abusing before or after started their college career?). Examining the time frame of abuse is particularly interesting because the results may help to determine some of the underlying reasons that these populations are at risk. As previously mentioned, research suggests that this reason may be a combination of selection and socialization effects (Bachman et al., 2005). By examining patterns of abuse, we may determine if the issue arises primarily due to the people, or the environment. If in fact we determine that those Greek-affiliated students abusing prescription drugs only started abusing when they got to college (and joined a fraternity or sorority), then the question becomes what about

these organizations s facilitating these risk-taking behaviors. If these factors can be determined, a shift in these components may help to decrease risk within this population.

Method

Participants

Participants in the current study include 515 undergraduate students at The University of Mississippi (28.99% male, 71.01% female). The University of Mississippi as a whole contains 54.97% Females, and 45.03% Males. Eighty two percent of respondents identified themselves as White/Caucasian, 5.8% African-American, 5.2% Multiracial, 2.7% Asian, 1.0% Hispanic or Latino, 0.4% American Indian, 0.6% Other, and 1.9% Preferred not to answer. These percentages through stratified random sampling are relatively representative of the overall population of The University of Mississippi which includes 76.2% White/Caucasian, 14.3% African-Americans, 3.8% Asian, 3.2% Hispanic or Latino, 1.9% Multiracial, and 0.3% American Indian.

Measures

Prescription Drug Abuse Survey

In order to obtain the research used in the present study a survey containing questions on demographics and prescription drug abuse was used. This survey was sent to a stratified random sample of students through their University of Mississippi email accounts. The survey was used to collect general information such as academic classification, gender, academic major, and race. Survey questions concerning demographic information were included after the completion of all questions concerning prescription drug use or abuse. In addition, the survey asked participants questions in

order to measure their own abuse of prescription drugs, and various elements in relation to the abuse of prescription drugs. Two different types of abuse additionally differentiated the measure of prescription drug abuse: taking someone else's prescription, or taking one's own prescription in higher doses or frequencies than prescribed. For the present study, the taking of someone else's prescription will be referred to as the 'non-prescribed drug use', and taking one's own prescription in higher doses or frequencies than prescribed will be referred to as 'prescription drug abuse'. For all questions concerning the use of prescription drugs four categories of drugs were provided. These categories included stimulants, sedatives, opiates, and tranquilizers. In addition to the more general drug categories, a list of sample drugs was provided for each (*e.g., Stimulants: Ritalin, Adderrall, Concerta, Vyvanse*).

Procedure

The University of Mississippi's Institutional Review Board approved all procedures used in the present survey. A stratified random sample of 7,030 undergraduate students enrolled at a large southern public university was collected, using a sampling frame provided by the university registrar. The number of undergraduate students randomly sampled was determined in order to ensure a 15% response rate. After being sampled from the total student population, those selected received an email through their university accounts invited them to participate in a survey for a survey design class through the university's honors college commissioned by the Office of the Vice Chancellor. The results from all surveys completed were then recorded through an online surveying apparatus, Qualtrics. Once recorded and organized all data was further examined through the use of data processing software SPSS.

Results

Analysis of High School Drug Use (All Types)

Differences between the abuse of one's own prescription and the use of prescription drugs not prescribed to the user were examined in relation to high school or college use. Of the 515 respondents who answered the question, 95 reported that they did use non-prescribed prescription drugs in high school. Of those 95, 53 were members of a fraternity or sorority. Consequently, 42 of those 95 were not members of a fraternity/sorority. Overall, 205 Greek-affiliated respondents reported that they did not use non-prescribed drugs in high school, and 209 of those non-affiliated students reported the same. Chi-square tests determined a non-significant relationship $\chi^2(1) = 1.22$, *ns* between Greek membership and high school non-prescribed drug use. While non-significant, this relationship is particularly noteworthy in its contention that Greeks and non-Greeks were not differentiated users in high school. With this result, the examination of this difference during one's years in college becomes more significant. This is because if the results of the present research indicate a significant difference between Greek-affiliated and non-affiliated students in their use of non-prescribed prescription drugs, the possibility that this difference is due to membership in a fraternity/sorority is raised.

Of the 515 respondents that answered the question, 61 reported that they did abuse prescription drugs in high school. Of those 61, 32 were members of a fraternity/sorority, and 29 were non-affiliated. While 32 Greek-affiliated students

reported that they abused prescription drugs in high school, 226 affiliated students reported not abusing prescription drugs in high school. In addition, while 29 non-affiliated students reported abusing prescription drugs in high school, 222 reported that they did not abuse prescription drugs in high school. Chi-square tests revealed a non-significant relationship $\chi^2 = 0.87$, *ns* between prescription drug abuse in high school and membership in a fraternity or sorority. This non-significant relationship is still noteworthy in its additional suggestion that Greek-affiliated and non-affiliated students did not differ significantly in their prescription drug use or abuse in high school, thus further suggesting that any eventual difference between the two groups would have resulted from a college experience.

In addition to the use or abuse of non-prescription and prescription drugs, an analysis of those providing prescription drugs to others in high school was conducted. Of the 34 respondents reporting that they did provide prescription drugs to others in high school, 15 were members of a fraternity/sorority, and 19 were non-affiliated students. In addition, 243 Greek-affiliated students reported that they did not provide prescription drugs in high school, and 232 non-affiliated students reported the same. Chi-square tests revealed that there was a non-significant relationship $\chi^2 (1) = 0.63$, *ns* between membership in a Greek organization and providing prescriptions to others in high school.

Analysis of High School Stimulant Use

In addition to examining use and abuse of prescription drugs (all types) in high school, an analysis of the use of stimulants in particular was conducted. Chi-square tests revealed that there was a non-significant relationship $\chi^2 (1) = 1.30$, *ns*, between membership in a Greek organization and the abuse of stimulants in high school. There

was an additional significant relationship $\chi^2(1) = 3.99$, $p < .05$ examined between Greek affiliation and non-prescribed stimulant use in high school. The third and final analysis, the relationship between providing prescription stimulants in high school and Greek affiliation, additionally yielded a non-significant relationship $\chi^2(1) = 0.54$, *ns*.

Analysis of High School Opiate Use

In addition to examining the specific category of stimulants, a further Chi-square analysis of use and abuse of opiates was conducted. A further analysis of the relationship between Greek affiliation and opiate abuse in high school additionally revealed a non-significant relationship $\chi^2(1) = 2.06$, *ns*. In addition, a chi-square analysis of non-prescription opiate use revealed a non-significant relationship $\chi^2(1) = 2.70$, *ns*. However, an analysis of Greek affiliation and providing opiates in high school revealed a significant relationship $\chi^2 = 4.29$, *ns*.

Analysis of College Drug Use (All Types)

Analysis of non-prescription drug use in college revealed that 167 members of a fraternity or sorority reported not using non-prescribed drugs (all types) in college, and 91 reported using non-prescription drugs (all types) in college. Of those surveyed that were not members of a fraternity or sorority, 185 reported not using non-prescribed drugs (all types) in college, and 66 reported using non-prescribed drugs (all types) in college. Chi-square tests revealed a significant relationship $\chi^2(1) = 4.80$, $p < .05$ between membership in a Greek organization and non-prescribed drug use in college.

Further analysis of prescription drug abuse in college revealed that 201 of those respondents that were members of a fraternity or sorority did not abuse prescription drugs in college, and 57 did abuse prescription drugs. Of those that were not members of a

fraternity or sorority, 207 reported that they did not abuse prescription drugs in college, and 44 reported abusing prescription drugs. Chi-square tests revealed a non-significant $\chi^2(1) = 1.66$, *ns* relationship between membership in a Greek organization and abuse of prescription drugs in college.

In addition to the use or abuse of non-prescribed and prescription drugs, an analysis of those providing prescription drugs to others in college was conducted. Of those that were members of a fraternity or sorority, 220 reported that they did not provide prescriptions (all types) in college, and 38 reported that they did provide prescriptions in college. Of those that were not members of a fraternity or sorority, 226 reported that they did not provide prescriptions (all types) in college, and 25 reported that they did provide prescriptions to others in college. Chi-square test revealed that there is a non-significant $\chi^2(1) = 2.67$, *ns* relationship between membership in a fraternity or sorority, and providing prescriptions (all types) to others in college.

Analysis of College Stimulant Use

In addition to an analysis of all types of prescription drug use and abuse in college, a chi-square analysis of stimulant use in college was run. This analysis initially revealed a statistically significant relationship between Greek affiliation and stimulant abuse in college $\chi^2(1) = 6.08$, $p < .05$. An additional analysis of stimulants abuse in the past two weeks further revealed a significant relationship between Greek affiliation and stimulant abuse in the past 2 weeks prior to the survey $\chi^2(1) = 4.19$, $p < .05$. An analysis of non-prescription stimulant use revealed a statistically significant relationship between Greek affiliation and non-prescribed stimulant use in college $\chi^2(1) = 8.03$, $p < .05$. A further analysis of this relationship revealed a statistically significant relation between

non-prescribed stimulant use in the past 2 weeks and Greek affiliation $\chi^2(1) = 11.26$, $p < .05$. In addition, a chi-square analysis of the relationship between Greek affiliation and providing stimulants in college revealed a significant relationship $\chi^2(1) = 4.10$, $p < .05$. An examination of providing stimulants in the past two weeks revealed a similarly non-significant result $\chi^2(1) = 2.18$, *ns*.

Analysis of College Opiate Use

An analysis of opiate use in college revealed a non-significant relationship between Greek affiliation and Opiate use in college $\chi^2(1) = 0.88$, *ns*, and a non-significant relationship between Greek affiliation and opiate abuse in the 2 weeks prior to the survey $\chi^2 = 1.10$, *ns*. A chi-square analysis of non-prescribed opiate use in college revealed a non-significant relationship between non-prescribed opiate abuse and Greek-affiliation $\chi^2(1) = 1.84$, *ns*, and a non-significant relationship between Greek affiliation and non-prescribed opiate abuse in the two weeks prior to the survey $\chi^2(1) = 0.40$, *np*. An analysis of the relationship between Greek affiliation and providing non-prescribed opiates in college revealed a non-significant relationship $\chi^2(1) = 0.27$, *ns*, and an additionally non-significant relationship between Greek affiliation and providing opiates in the 2 weeks prior to the survey $\chi^2(1) = 0.95$, *ns*.

Discussion

The evidence found in the present study supports the hypothesis that there is a statistically significant relationship between prescription drug use/abuse and fraternity/sorority membership. More specifically, the results of this study reveal significant relationships between Greek-affiliation, prescription drug use/abuse (all types), as well as stimulant use/abuse. Each of these significant relationships reveals that Greek-affiliated students are more likely to use various prescription drugs at different points in time. In addition to supporting the original hypothesis, the results of the present study reveal insights into the questions of whether Greek-affiliated students take more risks because they were always risky, or if these behaviors developed after becoming affiliated.

In an analysis of non-prescribed prescription drug use in high school, there was a significant relationship between Greek-affiliation and non-prescribed prescription drug use in high school. However, this is the only significant relationship found between Greek-affiliation, high school drug use (all types), prescription stimulant use/abuse in high school, and prescription opiate use/abuse in high school. These findings, while statistically insignificant, reveal something unique about Greek-affiliated prescription drug users and abusers. This evidence indicates that at some point between high school and their taking the survey, some aspect of college life has affected the prescription drug use/abuse of Greek-affiliated students. This brings about the question of what about the

Greek system is facilitating the observed differences in prescription drug use and abuse. According to the results of the present study, Greek-affiliation has, in some way, contributed to increasing amounts of prescription drug use/abuse in college students.

These results additionally relate to previous research suggesting that Greek-affiliated students engage in all risky behaviors more often than non-affiliated students. Research suggests that Greek-affiliated students engage in more risk-taking behaviors such as alcohol abuse, illicit drug use, and cigarette smoking, but the present study suggests that Greek-affiliated students are continuing this pattern in their use and abuse of prescription drugs. While Greek-affiliated students did not differ significantly in every type of prescription drug surveyed, these students reported significantly higher percentages of prescription drug use/abuse in general, and in terms of prescription stimulants. The most significant difference observed in the present study is the statistically significant relationship between Greek-affiliation and stimulant abuse in college, stimulant abuse in the past two days, non-prescribed stimulant use in college, and non-prescribed stimulant use in the past two days. These observed relationships between Greek-affiliation and the use/abuse of prescription stimulants specifically might reveal something about the Greek system as a whole.

An examination of Greek-affiliation and the use/abuse of stimulant medications provides an interesting discussion on why stimulants would be the most common prescription drug used/abused amongst Greek-affiliated students. There are various expectations that come with being a member of a Greek organization. These expectations include attending planned parties, maintaining high levels of academic excellence, and maintaining certain behavioral standards. The maintenance of these elements of

membership, in combination with the demands of being full-time college students, may create an environment in which students feel that they need prescription stimulants to keep up. However, this is just one explanation for the observed relationship between Greek-affiliation and prescription drug use. There are additional elements of Greek-affiliation that may contribute to the observed differences in prescription drug use/abuse.

Another proposed reason to explain the increased use/abuse of prescription drugs by Greek-affiliated college students relates back to the idea of selection and socialization effects. The present study suggests that the theory of selection effects may be less accurate. The results of the present research suggest that there are only minimal differences between the prescription drug use of affiliated and non-affiliated students in high school specifically. With this in mind, it follows that there must be something about the college trajectory of Greek-affiliated students that has led to high percentages of using/abusing prescription drugs. This evidence suggests that the theory of socialization effects may be more responsible for this difference. According to the theory of socialization effects, the increased prescription drug use amongst Greek-affiliated students is due to certain characteristics inherent in their environments, the Greek system, not in the members that join into it.

The present study provides great potential for future research in the area of increased prescription drug use in Greek-affiliated populations. With Greek-affiliated students making up a significant proportion of college students today, the health of this at-risk population is a crucial new area of research that must be explored. Now that a pattern of increased prescription drug use/abuse amongst Greek-affiliated students has been reported, the question of why this increase is present still remains. This question

more essentially asks what it is about the Greek system that has continued to facilitate risk-taking behavior. If certain elements leading to these risk-taking behaviors were revealed, college administrators could work with these organizations to create a safer environment for Greek-affiliated students. While this goal is worthy of further research, there are certain limitations to the present research.

Limitations

There is no way to know if survey participants were truthful in their reports of prescription drug use/abuse, and this fact constitutes the first limitation of the present study. In addition, with the topic of prescription drug abuse being somewhat sensitive, the possibility of this data error may be greater in the present study. While impossible to determine, there is the possibility that some students surveyed did not want to give completely true reports of their prescription drug use or abuse. The nature of the topic being surveyed may led to either an underestimation or overestimation of prescription drug use/abuse, but it follows that students would probably be more inclined to make an underestimation when reporting their own prescription drug use/abuse. This limitation is inherent when conducting surveys, but nevertheless must be taken into account when examining the results of the present study.

The second limitation to be considered is the possibility that the time period in which the survey was taken may have affected the results. The results of the present study indicate that in there were increased levels of prescription drug abuse in the two weeks prior to the study. This may be accounted for when considering that the two weeks prior to the survey being conducted coincided with the two weeks prior to the final exam period at the university examined. It may be that the present results may have been

partially influenced by the fact that this time frame is accompanied by extreme academic pressure and stress, which has the potential to lead to higher levels of prescription drug use and abuse. While we cannot know that the time frame of the survey had a definitive influence on the results of the present study, it is important to note the possibility of this outside influence on the results presented in this study.

The third limitation to be considered is the nature of the sample surveyed, more specifically the education institution that the participants were sampled from. The fact that Greek life is a significant element of student life at The University of Mississippi leads to the possibility that the present study may not be applicable to schools with smaller or significantly different Greek systems. Essentially, the results of the present study may have differed if the survey on prescription drug abuse had been run at schools with significantly different Greek systems. In addition, it is possible that the results of the present study might have differed if the survey had been run at a more academically rigorous educational institution. Just as students at more rigorous institutions would most likely have different educational experiences, they may additionally have different experiences with prescription drug use/abuse. Another element of the present study that presents as both a limitation and topic of future direction is that fact that the present study does not give evidence that provides insight into why Greek-affiliated students are using/abusing prescription drugs more than non-affiliated students. This is the information needed in order to allow for the development of comprehensive programs to help this at-risk population of students.

Future Research

In the future, research should not only be done on whether different Greek-affiliated populations continue to engage in risk-taking behaviors, but also why the Greek system is facilitating this behavior. While there are most likely multiple contributing factors to the issue, determining what about the social constructs of the Greek system seem to encourage this behavior is crucial. The present study revealed that the significant difference between Greek-affiliated students and non-affiliated students primarily began after high school. This fact alone suggests that some element of the Greek-affiliated college experience has led students to use/abuse prescription drugs at higher rates. In addition to determining why this difference may be present, future research should examine the differences between sororities and fraternities within the Greek-affiliated population. This difference in gender has the potential to help researchers and administrations determine which portion of this population is at the most risk, and why gender might influence prescription drug use and abuse. If further research were conducted on this population, the underlying reasons for their increased use/abuse may be revealed. With this information, administrators and Greek organizations may be able to work together to effectively educate Greek-affiliated students, and decrease the risk facing this population. Ultimately, establishing that Greek-affiliated students report significantly higher levels of prescription drug use and abuse is only the beginning of the future research needed to understand and aid this at-risk student population.

References

- Amoroso, A., Gudmundsdottir, B., Marraccini, M., Munro, B., Turcotte, K., Weyandt, L., & Zavras, B. (2013) Misuse of prescription stimulants among college Students: A review of the literature and implications for morphological and cognitive effects on brain functioning. *Experimental and Clinical Pharmacology*, 5, 385-407, 10.1037/a0034013.
- Bachman, J., Johnston, L., Kloska, D., McCabe, S., O'Malley, P., & Schulenberg, J. (2015) Selection and socialization effects of fraternity and sororities on U.S. college students substance use: a multi-cohort national longitudinal study. *Society for the Study of Addiction*. 100, 512-524, 10.1111/j.1360-0443.2005.01038.x.
- Bartholow, B., Krull, J., & Sher, K. (2003) Changes in Heavy Drinking Over the Third Decade of Life as a Function of Collegiate Fraternity and Sorority Involvement: A Prospective, Multilevel Analysis. *Health Psychology*. 22, 616-626, 10.1037/0278-6133.22.6.616.
- Berns, A., Conyers, L., Heiligenstein, E., & Miller, M. (1998) Preliminary normative data on DSM-IV attention deficit hyperactivity disorder in college students. *Journal of American College Health*. 46, 185-188. 10.1080/07448489809595609.
- Blackwell, M., Davis, C., Evans, J., Gaines, K., Jones, B., Newcomer, J., Pollard, M., Robinson, V., Smith, C., & Tanner, J. (2014) Prescription Drug Abuse at the University of Mississippi. The University of Mississippi, Oxford, MS.
- Bosari, B., Capone, C., Laird, R., & Wood, M. (2007) Fraternity and Sorority Involvement, Social Influences, and Alcohol Use Among College Students: A

- prospective Examination. *Psychology of Addictive Behaviors*. 21, 316-327, 10.1037/0893-164X.21.3.316.
- Brigham, N., Clayton, R., & Harrington, N. (1997) Differences in alcohol use and alcohol-related problems among fraternity and sorority members. *Drug and Alcohol Dependence*. 47, 237-246, 10.1016/S0376-8716(97)00096-3.
- Butcher, R., Coleman, J., Dupont, R., Wilford, B. (2008) Characteristics and motives of college students who engage in nonmedical use of methylphenidate. *American Journal of Addiction*. 17, 167-171, 10.1080/10550490802019642.
- Canu, W., Correia, C., Cleveland, C., Fedele, D., Hartung, C., Leffingwell, T., Lefler, E., & Mignogna, M. (2013) Stimulant Medication Use in College Students: Comparison of Appropriate Users, Misusers, and Nonusers. *Psychology of Addictive Behaviors*. 27, 832-840, 10.1037/a0033822.
- Carey, M., Carey, K., Scott-Sheldon, J. (2008) Health behavior and college students: Does Greek affiliation matter? *Journal of Behavioral Medicine*. 31, 61-70, 10.1007/s10865-007-9136-1.
- CDC. (1995) Youth Risk Behavior Surveillance: National College Health Risk Behavior Survey. *MMWR CDC Surveillance Survey*. 46, 1-56.
- DeSantis, A., Noar, S., & Webb, E. (2008) Illicit Use of Prescription ADHD Medication on a College Campus: A Multimethodological Approach. *Journal of American College Health*. 57, 315- 323, 10.3200/JACH.57.3.315-324.
- DeJong, W., Fairlie, A.M., & Stevenson, J.F. (2010). Fraternity and Sorority Leaders and Members: A Comparison of Alcohol Use, Attitudes, and Policy Awareness. *The*

American Journal of Drug and Alcohol Abuse. 36, 187-193, 10.3109/00952990.2010.491878.

Gasser, M., Geisner, M., Kilmer, J., & Lindgren, K. (2015) Normative perceptions of non-medical stimulant use: Associations with actual use and hazardous drinking. *Addictive Behaviors.* 42, 51-56, 10.1016/j.addbeh.2014.11.005.

Glass, N. (2012, May 8) *Examining the benefits of Greek life*. Retrieved from <http://college.usatoday.com/2012/05/08/examining-the-benefits-of-greek-life/>

Glenhil-Hoyt, J., Lee, H., Strote, J., & Wechsler, H. (2002) Increased use of marijuana and other illicit drugs at US colleges in the 1990s: results of three national surveys. *Addiction.* 95, 1655-1667, 10.1046/j.1360-0443.2000.951116556.x.

Gore-Felton, C., McGarvey, L., Mathews, R., Porter, J., Ragsdale, K., & White, A. (2012) "Liquor before beer, you're in the clear": binge drinking and other risk behaviors among fraternity/sorority members and their non-Greek peers. *Journal of Substance Abuse.* 17, 323-339, 10.3109/14659891.2011.583312.

Krull, J., Park, A., Sher, K., & Wood, P. (2009) Dual Mechanisms Underlying Accentuation of Risky Drinking via Fraternity/Sorority Affiliation: The Role of Personality, Peer Norms, and Alcohol Availability. *Journal of Abnormal Psychology.* 118, 241-255, 10.1037/a0015126.

Kenney, S., LaBrie, J., Lac, A., & Mirza, T. (2011) Identifying factors that increase the likelihood of driving after drinking among college students. *Accident Analysis and Prevention.* 43, 1371-1377, 10.1016/j.aap.2001.02.011.

- McCabe, S., Wechsler, H., & West, B. (2007) Trends and college-level characteristics associated with the non-medical use of prescription drugs among US college students from 1993 to 2001. *Addiction*. 102, 455-465, 10.1111/j.1360-0443.2004.00944.x.
- National Institute on Alcohol Abuse and Alcoholism. (2015) Alcohol Facts and Statistics. Retrieved from <http://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics>
- Routon, P., & Walker, J. (2014) The impact of Greek organization membership on collegiate outcomes: Evidence from a National Survey. *Journal of Behavioral and Experimental Economics*. 49, 63-70, 10.1016/j.socec.2014.02.003.
- Smith, C.V. & Nezlek, J.B. (2005). Social Identity in daily social interaction. *Self and Identity*. 4, 243-261, 10.1080/13576500444000308.